

## A new species of torrent toad (Genus : *Ansonia*) from Silent Valley, S. India

R S PILLAI and R PATTABIRAMAN  
Zoological Survey of India, Madras 600 028, India

MS received 4 October 1980

**Abstract.** A new species of torrent toad, *Ansonia rubigina* is being described from a rocky stream in Silent Valley, South India. Although resembling closely the only other species, viz., *Ansonia ornata* described from India, it is specifically distinct.

**Keywords.** *Ansonia rubigina* ; *Ansonia ornata* ; torrent toad ; new species.

### 1. Introduction

In April–May 1980 a multidisciplinary expedition to Silent Valley was made to collect information on the fauna of the submergible area of the hydel project proposed to be constructed on the River Kunthi. Along with many other species of Amphibia the authors collected a new species of torrent toad belonging to the genus *Ansonia* which is described here.

### 2. Material

Two examples were collected from a tributary of the River Kunthi about 5 km north of the dam-site.

Family : Bufonidae  
Genus : *Ansonia* Stoliczka  
*Ansonia rubigina* sp. nov. (figures 1 and 2)

### 3. Diagnosis

Small toad, brick-red in colour, without cranial ridges or parotoid glands. Digits with swollen tips, feet almost fully webbed, tibio-tarsal articulation of the adpressed hindlimb not reaching tympanum. Dorsal skin distinctly tuberculated all over.

#### 4. Description

##### 4.1. Head

A little broader than long, without cranial ridges; snout truncated, projecting beyond lower jaw. *Canthus rostralis* distinct, angular; loreal region vertical; nostrils lateral, near the tip of snout just behind the truncated tip, distance between them less than minimum interorbital distance and a little less than twice the largest diameter of tympanum. Eyes with pupil circular, its diameter more than double that of tympanum and a little more than interorbital distance. Upper eyelid flat, oval, broad and one and half times wider than tympanum. Tympanum distinct, smooth, a little less than half diameter of eye and exactly half the minimum interorbital space. Upper jaw without teeth, vomerines absent, tongue small, pyriform. Parotoids absent.

##### 4.2. Forelimbs

Slender, three-fourths of total length from tip of snout to vent. Fingers free, tips swollen, first finger shorter than second, second almost half of third and a little shorter than fourth. Subarticular tubercles not prominent. Two pads on palm, a large one on the basal middle part and a smaller one at the base of the first finger.

##### 4.3. Hindlimbs

Slender, tibiotarsal articulation of the adpressed limb not reaching tympanum. Tibia less than half in length from tip of snout to vent,  $4\frac{1}{2}$  times as long as broad, heels crossing when limbs are folded at right angles to body. Toes with tips swollen, almost fully webbed, the two distal digits of the fourth toe alone being free. Subarticular tubercles simple; a large inner metatarsal tubercle and a small outer one present. Outer metatarsal tubercle fused for more than half its length.

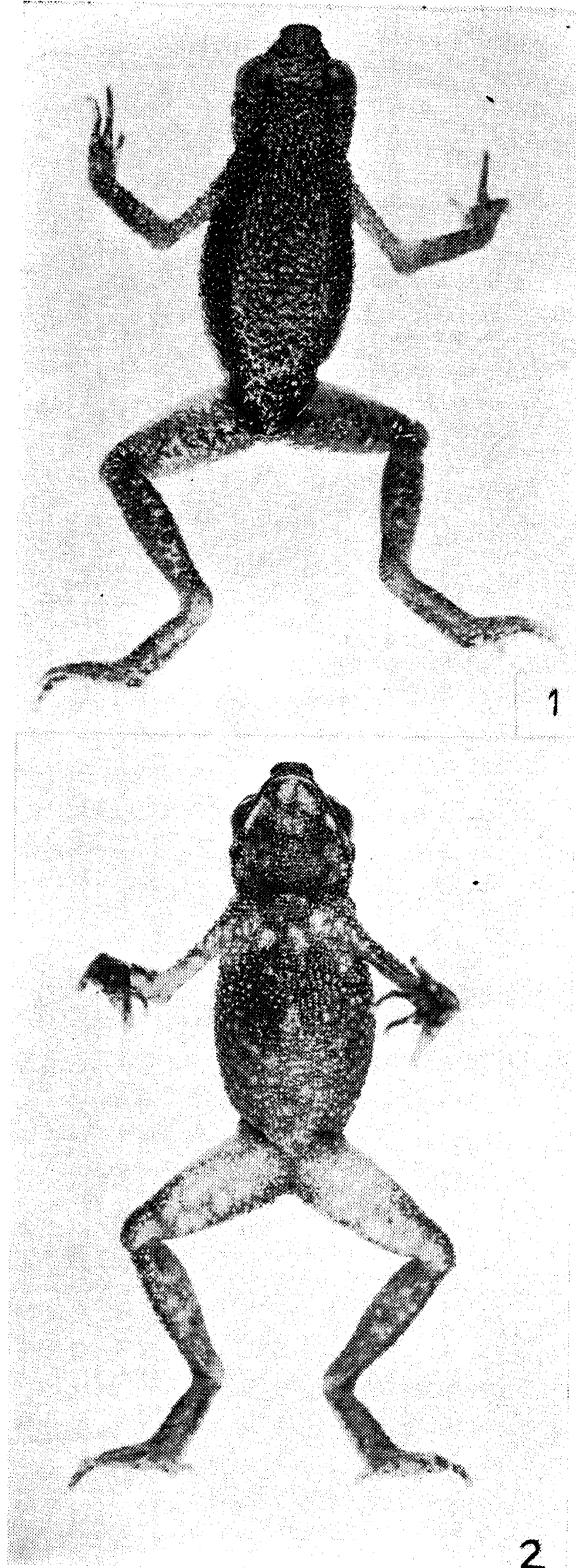
##### 4.4. Skin

Dorsal surface beset with uniform tubercles from snout to vent, those behind head with small apical spines. Sides of head (excepting for tympanum), flanks and upper side of limbs also similarly tuberculated. A small hump above vent, diapophyses of sacral vertebrae projecting. Ventral skin rough with spine-tipped tubercles on throat and chest. Belly and underside of limbs with flattened tubercles.

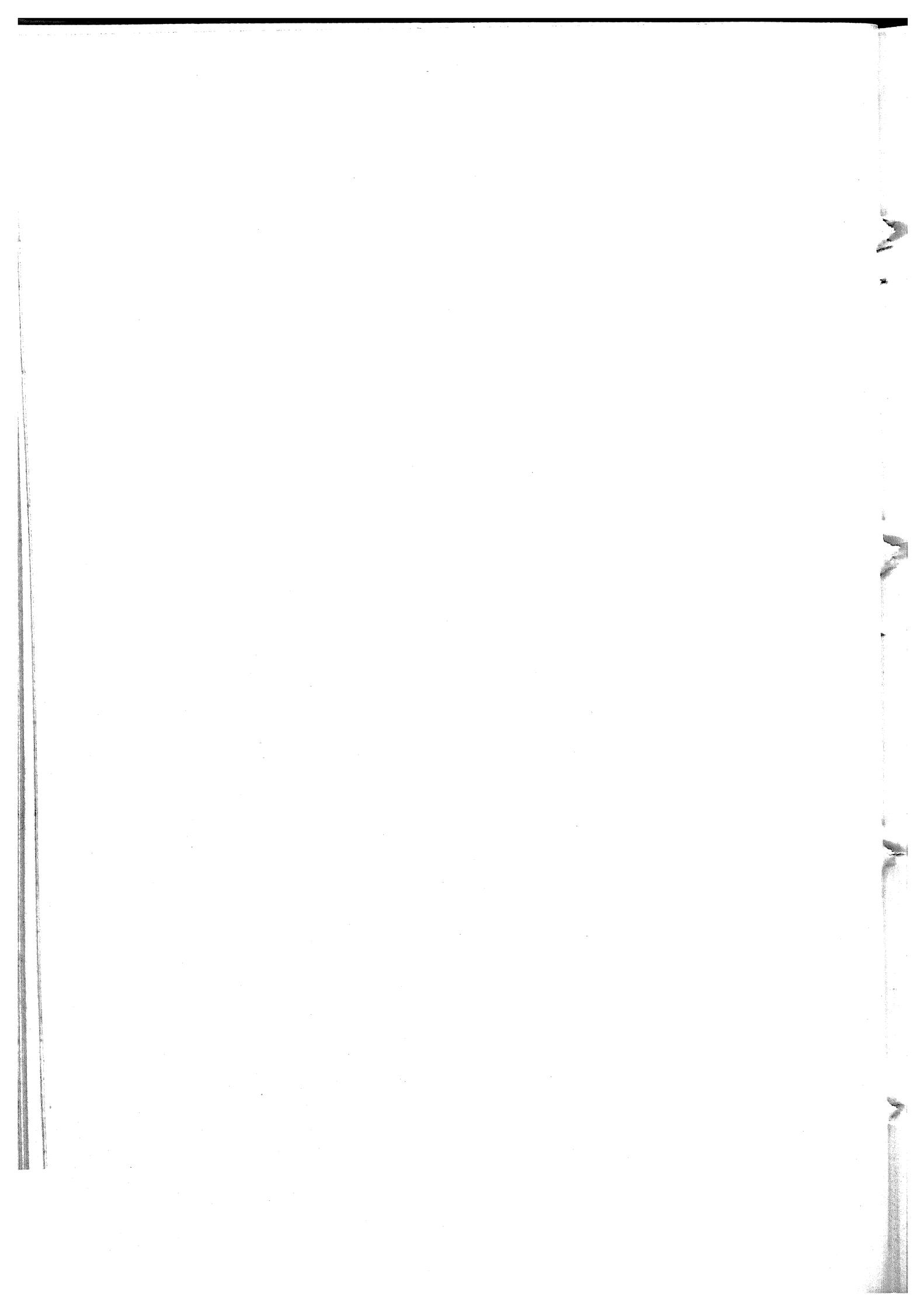
##### 4.5. Colour

As the name implies it has a beautiful brick-red coloured dorsum at the time of capture. Venter brownish black with vermiform patterns in bright orange on throat. Spots of same colour on chest, belly and underside of thighs. Flanks brownish, not spotted. In the larger example the hind part of belly had a brownish orange colour demarcated from the anterior brownish black diagonally.

After preservation the colour turned dull, the brick-red being replaced by grey and the bright orange by white.



**Figures 1 and 2.** Dorsal and ventral views of *Ansonia rubrigina* Pillai and Pattabiraman.



## 4.6. Measurements

	Holotype mm	Paratype mm
Total length (from tip of snout to vent)	40.5	36.0
Length of head (from tip of snout to angle of jaws)	10.5	9.0
Width of head (at angle of jaws)	11.0	10.0
Length of snout	5.0	4.0
Diameter of eye	4.5	4.2
Width of upper eyelid	3.2	3.0
Minimum interorbital distance	4.0	4.0
Diameter of tympanum	2.0	2.0
Length of forelimb	29.0	27.0
Length of hindlimb	51.0	49.0
Length of tibia	18.0	17.5

*Holotype* : An adult frog, loc. Kummattan Thodu, a tributary of River Kunthi, Silent Valley, S. India, Altitude 1005 metres, Coll. R. S. Pillai, 2 May 1980.

*Paratype* : An adult frog, loc. Kummattan Thodu, as above, Altitude 1000 metres Coll. R. S. Pillai, 26 April 1980.

The types are at present deposited with the Southern Regional Station, Zoological Survey of India, Madras.

## 4.7. Field notes

The type-locality of *Ansonia rubigina* is a forest stream in the Silent Valley, viz. Kummattan Thodu which is a tributary of the Kunthi River. Well shaded by the tall trees of the evergreen forest on either side, the swift stream passed along innumerable boulders. Both the toads were taken from wet rocks by the side of torrential waters. They were not very agile being capable of taking only short hops. The webbed feet, however, are indicative of their ability to swim.

## 5. Affinities

Absence of cranial ridges and parotoid glands, presence of a tuberculated skin, swollen digital tips, almost fully developed membranous web on feet, and life in torrents are all features which undoubtedly establish that the specimens belong to the genus *Ansonia*.

Only a single species of the genus, viz., *Ansonia ornata* is known to occur in India (Brahmagiri Hills, Mysore) on the basis of a short description by Gunther (1875). Boulenger (1882) had given a little more elaborate description including it under *Bufo pulcher*. Inger (1954) has however, indicated that the three species, viz., *Bufo penangensis* (Stoliczka), *Bufo muelleri* Boulenger and *Bufo leptopus* Gunther from Philippine require separate status and that the generic name *Ansonia* Stoliczka is available for the three species. Daniel (1963) considers, *Bufo pulcher* Boulenger to be a synonym of *Ansonia ornata*.

*Ansonia rubigina* resembles strongly *A. ornata*. However it differs from the latter in the distinct tuberculation of the entire dorsum (as against anterior half only), in the much shorter hindlimb (tibiotarsal articulation not reaching to tympanum as against reaching to between eye and tip of snout in *A. ornata*) and in the distinctive colouration.

### Acknowledgement

The authors are thankful to Dr T N Ananthakrishnan, Zoological Survey of India, Calcutta for all facilities and encouragement.

### References

Boulenger G A 1882 *Catalogue of the Batrachia Salientia S. Ecaudata in the collection of the British Museum, London* p. 288

Daniel J C 1963 Field guide to the Amphibians of Western India Part I ; *J. Bombay Nat. Hist. Soc.* 60 (2) 415-438

Gunther A 1875 Report of Indian Reptiles obtained by the British Museum ; *Proc. Zool. Soc.* p. 568, pl. 63

Inger R F 1954 Systematics and Zoogeography of Philippine Amphibia ; *Fieldiana Zool.* 33 p. 239